

# What can we engineer for YOU?

ASI has supplied custom OEM pump assembly solutions for Proteomics-LCMS, Process Instrumentation, Pharmaceutical Manufacturing, Supercritical Fluid Chromatography, Preparative Chromatography, Biotech and SEC/GPC Systems.

Inquire about OEMs private labels

Option #1: mechanical pump assembly only

Option #2: pump + PCBA + hydraulics (transducer + purge valve)

Option #3: completed pump with enclosure

We will make a custom configuration per your specification.

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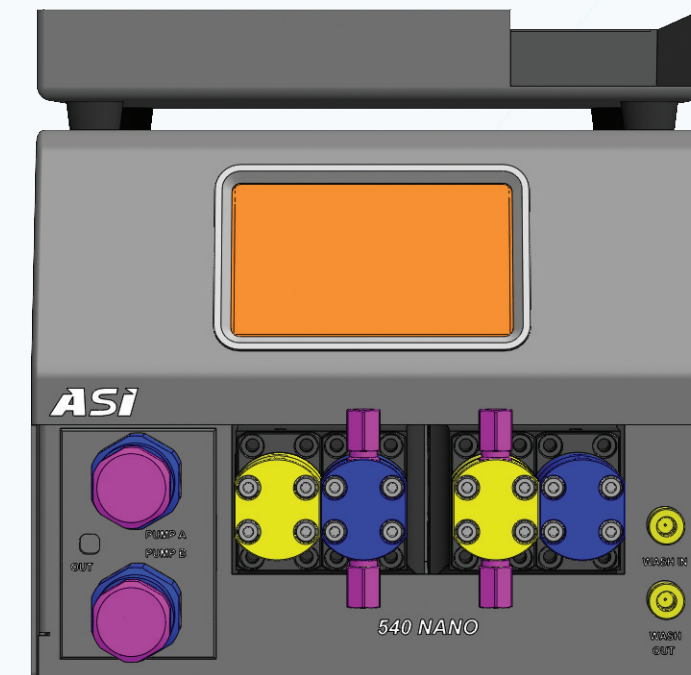
Email: [info@hplc-asi.com](mailto:info@hplc-asi.com)

**ASI** Analytical Scientific Instruments US

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# 540 NANO GRADIENT UPLC PUMP

Bridges the gap between Nano UPLC and Micro UPLC



## Features:

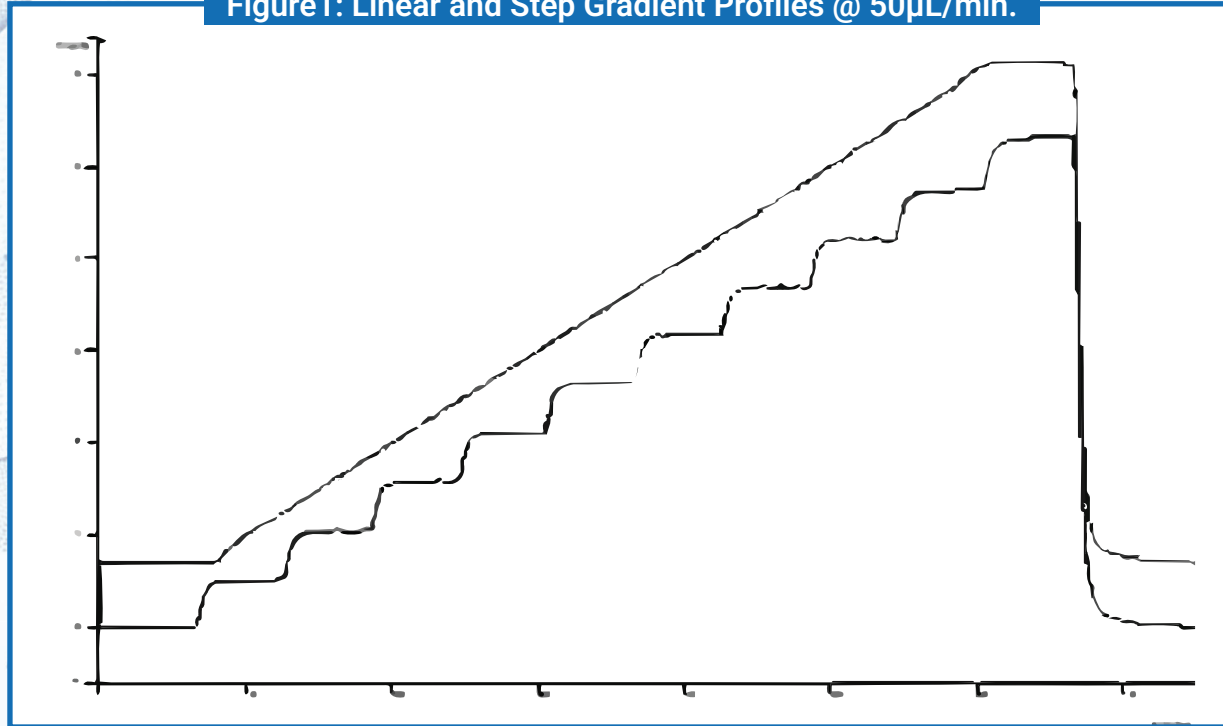
- Gradient system from 100 nL/min. to 1 mL/min.
- 12,500 maximum operating pressure
- Flow feedback for accurate and repeatable flow rate
- Intuitive touch screen display for local control
- Available with integrated wash pump option for buffers
- Windows GUI for computer control (Modbus RTU using RS485)
- ASI nano check valve technology eliminates need for expensive rotary shear valves  
NO MORE CONTAMINATION FROM WORN ROTOR SEALS!
- Optional solvent tray allows hands free solvent selection for up to 4 solvents

\* Optional 15,000 PSI range available

# ASI

# ASI Performance Data

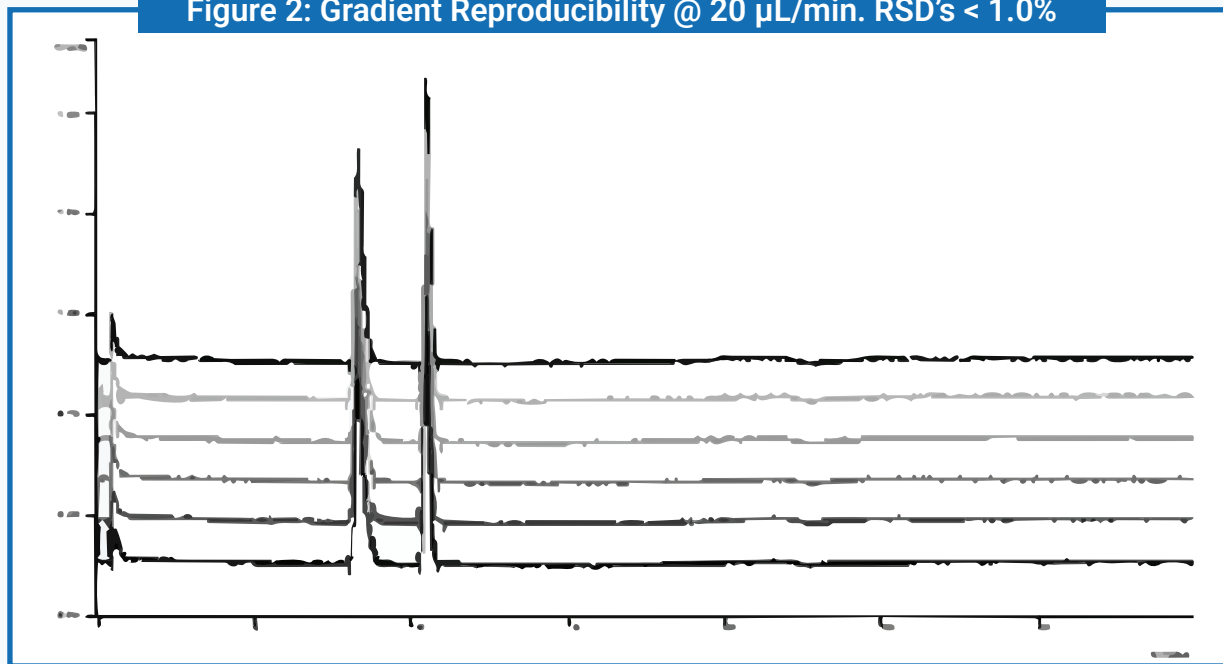
Figure 1: Linear and Step Gradient Profiles @ 50µL/min.



**HPLC System:**  
 ASI Micro Head  
 Detection: UV214  
 Mixer: ASI HyperShear In-Line 25 µL

**HPLC Conditions:**  
 MP: A = H2O, B = H2O doped with 0.05% red dye  
 Flow Rate: 50µL/min  
 Step Gradient: 0 to 100% B in 60 min., 10% steps  
 Linear Gradient: Same, 4 min. T0 hold

Figure 2: Gradient Reproducibility @ 20 µL/min. RSD's < 1.0%



**HPLC System:**  
 ASI Micro Head Detection: UV214  
 Mixer: ASI HyperShear In-Line 25 µL

**HPLC Conditions:**  
 MP: A = H2O, B = H2O doped with 0.05% red dye  
 Flow Rate: 20µL/min Gradient: 5 to 95% B in 20 min  
 Sample: Methyl and Ethyl Parabens

## 540 NANO Gradient UPLC Pump Specifications

Flow Range	100 nL/min. to 1 mL/min.
Max Pressure	12,500 PSI (Optional 15,000 PSI range available)
Accuracy	± 2% @ 1 µL/min. and 4,000 PSI
Precision	0.25%, 0.10 mL/min. @ 4,000 PSI @ 20°C
Flow Pulsation	.5% Δ P/P @ 4,000 PSI pressure
Dimension	9.0" W x 14.25" D x 7.5" H
Weight	20 lbs.
Power	AC 100 – 240 V 50/60 Hz, Fuse: 4A, 250 V

*\*Please contact ASI for 540 NANO Isocratic Pump with flow range: 50 nL/min. to 1 mL/min.*

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